

Concept Note
Global Forum on Science and Technology for Disaster Resilience 2017
(28 September 2017)

[Sendai Framework for Disaster Risk Reduction 2015-2030]

The goal of the Sendai Framework is to prevent new and reduce existing disaster risk, increase preparedness for response and recovery, and thus strengthen resilience.

The Sendai Framework is structured around 4 priorities for action:

Priority 1: Understanding disaster risk.

Priority 2: Strengthening disaster risk governance to manage disaster risk.

Priority 3: Investing in disaster risk reduction for resilience.

Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

Whilst Governments have the primary responsibility for the implementation of the Sendai Framework, the Framework calls for an all-of-society engagement and partnership. In particular, it recognizes the critical role the science and technology community must play to encourage risk-informed public and private informed investment based on scientific evidence and use of technology, and promote enhanced cooperation between science entities and private sector to develop new products and services to help reduce the risks. Specifically, the Sendai Framework asks the science and technology community to focus “on the disaster risk factors and scenarios, including emerging disaster risks, in the medium and long term; increase research for regional, national and local application; support action by local communities and authorities; and support the interface between policy and science for decision-making” (36 (b)).

[The 2016 UNISDR International Science and Technology Conference]

To discuss how the science and technology community can best support the implementation of the Sendai Framework, the UNISDR Science and Technology Conference, held in Geneva in January 2016, brought together the full diversity of the science and technology community, policy makers, practitioners and researchers from all geographical regions, at local, national, regional and international levels. The conference launched the UNISDR Science and Technology Partnership to build collaboration between major institutions, research centres and academia working on the different disciplines in developing and applying science and technology to reduce disaster risk. It also adopted the Science and Technology Road Map, which presents expected outcomes and proposes key areas of actions under each of the four priority of actions outlined in the Sendai Framework that the UNISDR Science and Technology Partnership will undertake to fulfill in order to achieve the goal of Sendai Framework. It also highlights systems for monitoring progress and reviewing needs.

[DRR Indicators and Terminology]

Over the course of 2015/2016, the Open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction (OIEWG) developed a set of 38 indicators to measure global progress in the implementation of the Sendai Framework for Disaster Risk Reduction, and revised the 2009 Terminology for Disaster Risk Reduction. The OIEWG concluded its work in November 2016, with recommendations submitted for endorsement to the United Nations General Assembly. On 17 January 2017, the UN GA endorsed both the indicators and terminology by Resolution A/71/L.54. Based on the global set of indicators, countries are now working on the development of nationally determined targets and indicators to facilitate their monitoring and reporting.

In March 2017, five global Sendai indicators were adopted by Member States in the 48th Session of the United Nations Statistical Commission (SC), for use in measuring disaster-related two goals and nine targets of the 2030 Agenda for Sustainable Development; thereby allowing the simultaneous and coherent monitoring and reporting on the Sendai Framework and the SDGs. In addition, work is underway to ensure linkages between the indicator systems of the Paris Climate Agreement and the Sendai Framework.

Supporting countries in the development of relevant risk metrics to measure progress against the Sendai indicators, the SDGs, the Paris Agreement will require close collaboration between Governments and stakeholders.

[Concrete Actions for the way forward]

Building on the achievements outlined above, the science and technology community needs to urgently take action to advance the work of the science and technology in 2017 and beyond. In order to facilitate discussions and pursue steady implementation of the four priorities for action of the Sendai Framework, concrete action, the United Nations Office for Disaster Reduction (UNISDR), the International Council for Science (ICSU), Integrated Research on Disaster Risk (IRDR) and the Science Council of Japan (SCJ) will co-organize a Global Forum on Science and Technology for Disaster Resilience 2017, to be held in Tokyo on 23–25 November 2017.

The Forum aim to promote all stakeholders to develop plans for the following two **outputs** through working together in interdisciplinary and trans-disciplinary way:

- 1) Guidelines for Strengthening DRR National Platforms and coordination mechanisms through enhanced contribution of Science and Technology,
- 2) Periodic Synthesis Reports on the state of Science and Technology for Reducing Disaster Risk.

[Guidelines for Strengthening DRR National Platforms and coordination]

As highlighted in Priority 2 of the Sendai Framework, strengthened disaster risk governance at national, regional, and global levels is a basic strategy to achieve effective disaster risk reduction and build resilience. The Sendai Framework calls for establishment and strengthening of multi-stakeholder, multi-sectoral and multi-hazard

government coordination forums at all levels, in particular national and local platforms. The active engagement of science and technology entities in these platforms is thereby critical for the provision of the relevant scientific and technological knowledge for the development and effective implementation of evidence-based policies, strategies and plans by 2020 as requested in Target E of the Sendai Framework. Furthermore, UN agencies, international development organizations, international scientific and technological initiatives should develop a system to provide support for DRR national platforms and coordination mechanisms. To accelerate efforts for strengthening national platforms, the Forum suggests the development of guidelines for promoting science and technology contributions to DRR national platforms and enhance the interface of science and decision making authorities.

[Periodic Synthesis Reports on the state of Science and Technology for Reducing Disaster Risk]

To promote the use of science in DRR policy-making and enhanced coordination among scientific and technological research activities at national, regional and global levels, synthesis of scientific evidence should be produced in a timely, accessible and policy-relevant manner. This should include comprehensive knowledge and information on the state of science and technology related to the identification of disaster risks, the assessment of the socio-economic impact of disasters, and existing tools and methodologies for the substantial reduction of human and economic losses. The information should be presented in a clear, easy-to-understand way for the application by policy-makers and other decision-makers worldwide. The Forum therefore suggests the development of integrated synthesis reports through the coordination of international scientific and technological research initiatives. Reports should be published periodically (i.e., mid-term and final reports during the period of the Sendai Framework) and by thematic areas of work under the Sendai Framework priorities of action. Collaboration should be strengthened not only among disaster risk reduction community but also with other areas closely related to disaster risk reduction, such as those concerning climate change mitigation and adaptation measures and the achievement of the sustainable development goals.

[Planning Strategy]

Increasing disaster resilience and sustainable development involves many stakeholders. To develop science contribution to DRR national platform guidelines and synthesis reports, we need to maximize the use of existing knowledge and create new types of science and technology that serve broad and collective societal needs. Building this new approach requires interdisciplinary research, collaboration, and cooperation among all disciplines of natural sciences including physical, chemical, and earth and related environmental sciences and biological sciences; engineering and technology; medical and health sciences, social and political sciences; and the humanities. Transdisciplinary collaboration and excellent communication between scientists, practitioners, and policy-makers are essential.

Further strengthening the ties between the science and technology community and the private sector for the development and use of facilities, products and financial

mechanisms related to disaster risk reduction will further enhance availability and use of scientific knowledge and technology. Stronger cooperation between the science and technology community and the private sector will be pursued at the following areas: disseminating of risk knowledge better understanding of risks by articulating specific risk factors; promotion of public-private partnership for investment in DRR; and monitoring progress of risk-sensitive investment.

[Outline of The Global Forum on Science and Technology for Disaster Resilience]

Date:

23-25 November 2017

Venue:

Science Council of Japan, Tokyo, Japan

Co-Hosts:

United Nations International Strategy for Disaster Reduction (UNISDR)
International Council for Science (ICSU)
Science Council of Japan (SCJ)
Integrated Research on Disaster Risk (IRDR)

Expected Participants:

- Government Agencies, Academic societies and organizations for disaster research, Citizen Societies, Private Sectors,
- UN Agencies: UNISDR, UNDP, UNESCO, WMO, WHO, UN University
- International Community
 - Science and Technology: ICSU, IAP, IRDR, IUGG and Future Earth
 - Earth Observation: GEO, CEOS
 - Economy: OECD
- Relevant development partners, including development aid agencies

Objectives:

To pursue steady implementation of the four priorities for action of the Sendai Framework, the Forum aim to promote all stakeholders to develop plans for the following two **outputs** through working together in interdisciplinary and transdisciplinary way:

- 1) Guidelines for Strengthening DRR National Platforms and coordination mechanisms through enhanced contribution of Science and Technology
- 2) Periodic Synthesis Reports on the state of Science and Technology for Reducing Disaster Risk

Conference Sessions

- **Plenary Sessions**
 - High Level Panel
 - Panel for Promoting Interdisciplinary Collaboration
 - Panel for Identifying Roles of Science and Technology in the Four Priorities

- for Action of the Sendai Framework (review the Science and Technology roadmap)
 - Panel for Strengthening National Platforms through the contribution of Science and Technology
 - Panel for Developing Synthesis Reports on science for DRR
- **Working Group Breakout Sessions:**

Four WGs (Understand, Governance, Investment and BBB) discuss the following topics deeply:

 - Reviewing the Roadmap
 - Summarizing Best Practices
 - Planning for Development of guidelines on science contribution to National DRR Platform
 - Planning for Development of Synthesis Report
- **Joint Poster Session:**

Promoting Collaborative Work between Research Communities and Private Sectors

Tentative Agenda

Nov.23	AM1	Opening, Keynote Speeches
	AM2	Plenary for Priority 1
	Lunch	Joint Poster Session 1
	PM1-2	Plenary for Priority 2, 3 and 4
		Reception
Nov.24	AM1	WG Breakout Session1
	AM2	Plenary for Interdisciplinary
	Lunch	Joint Poster Session 2
	PM1	Plenary for National Platform
	PM2	Plenary for Synthesis
	PM3	WG Breakout Session 2
Nov.25	AM1	WG Breakout Session 3
	AM2	Plenary for Summary
	Lunch	Joint Poster Session 3
	PM1	High-level Panel
	PM2	Adoption of Tokyo Statement 2017, Closing